APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/690,077	10/16/2000	Alik Shimelmitz	RADI 17.486	2019

			EXAMINER
26304	7590	04/02/2004	WILSON, ROBERT W

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ART UNIT	PAPER NUMBER
2661	5

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2000*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,12,17-20,22 and 24-29* is/are rejected.

7)☒ Claim(s) *10,11,13-16,21,23 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *2*.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.0 The application of Alik Shimelmitz et. al. entitled "CIRCUIT EMULATION SERVICE (CES) OVER IP" filed on 10/16/2000 without foreign priority was examined. Claims 1-30 are pending.

Drawings

2.0 The drawings were approved by the draftsperson as formal.

Claim Rejections - 35 USC § 102

3.0 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4.0 **Claims 1-5, 19-20, 24-25 & 27-28** are rejected under 35 U.S.C. 102(e) as being anticipated by Cox et. al. (U.S. Patent No.: 6,459,708 B1)

Referring to **Claim 1**, Cox teaches: A computer-based communication system implementing circuit emulation service over an Internet Protocol network (CES over IP, CESOIP) (Figs 4-9)

Circuit-data receiver to receive circuit data (601 per Fig 6 buffers or receives circuit data from Trunk INTERFACE LOGIC per Fig 5)

CE-to-IP function which further comprises (520 per Fig 5):

Packetizer to pack said circuit-data into data packets (610 per Fig 6 or col. 13 line 39-col 14 line 39)

Encapsulator to encapsulate said data packets with headers (620 per Fig 6 or col. 13 line 39-col 14 line 39)

Layer-2 incorporator to add the layer-2 operations (620 per Fig 6 or col. 13 line 39-col 14 line 39 & col. 11 lines 51-65) and wherein said IP network transmits said encapsulated data packets (630 per Fig 6)

In Addition:

Regarding **Claim 2**, wherein said circuit data comprises any of three types: structured, unstructured, or SDH virtual containers (VC's) (header added two E1 frames per col. 15 lines 6-11 or structured)

Regarding **Claim 3**, wherein said circuit data source stream comprises a T1/E1 or T3/E3 (T1/E1 per col. 13 line 39-col. 14 line 39)

Regarding **Claim 4**, wherein said system further comprises a framer component (610 per Fig 6 or Framer component or col. 14 line 41-col. 15 line 49)

Regarding **Claim 5**, wherein said packetizer packs data into packets via collecting relevant time slots (TS) from each TDM frame (The applicant broadly claims "relevant time slots". The examiner interprets all T1 or E1 time slots as relevant time slots which are packets by col 15 line 1-11)

Regarding **Claim 19**, wherein said step of encapulsating data packets involves encapusulation with any of the following headers: RTP, UDP, and IP headers (UDP and IP header per 620 per Fig 6 or col. 14 line 41-col 15 line 50)

Regarding **Claim 20**, wherein said system is implemented across networks comprising any of LANs, WANs cellular, Internet or Web based networks (col. 11 line 51-65)

Referring to **Claim 24**, Cox teaches: A computer-based communication system implementing circuit emulation service over an Internet Protocol network (CES over IP, CESOIP) (Figs 4-9)

receive circuit data (601 per Fig 6 buffers or receives circuit data from Trunk INTERFACE LOGIC per Fig 5)

passing said circuit data through CE-to-IP function which further comprises (520 per Fig 5):

packing data into data packets (610 per Fig 6 or col. 13 line 39-col 14 line 39)

encapsulating said data packets with headers (620 per Fig 6 or col. 13 line 39-col 14 line 39)

incorporating said data packets with layer-2 headers (620 per Fig 6 or col. 13 line 39-col 14 line 39 & col. 11 lines 51-65) and

transmitting said encapsulated and layer-2 incorporated data packets via a IP network (630 per Fig 6)

In Addition:

Regarding **Claim 25**, wherein said circuit data source stream comprises a T1/E1 or T3/E3 (T1/E1 per col. 13 line 39-col. 14 line 39)

Regarding **Claim 27**, wherein said system further comprises a framer component (610 per Fig 6 or Framer component or col. 14 line 41-col. 15 line 49)

Regarding **Claim 28**, wherein said step of encapulsating data packets involves encapusulation with any of the following headers: RTP, UDP, and IP headers (UDP and IP header per 620 per Fig 6 or col. 14 line 41-col 15 line 50)

Claim Rejections - 35 USC § 103

5.0   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.0   **Claims 6-9, 12, 17-18, 22, 26, & 29** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Cox et. al. (U.S. Patent No.: 6,459,708 B1).

Referring to **Claims 6-9, 12, & 18** Cox teaches: A computer-based communication system implementing circuit emulation service over an Internet Protocol network (CES over IP, CESOIP) as per claim 1,

 Cox does not expressly call for: wherein each circuit data source stream comprises a virtual container of VC-12 (SDH) as claimed in **Claim 6**; wherein the system addition comprises a SDH frame as claimed in **Claim 7**;wherein said system further comprises a High Order Path

Adaptation function as claimed in **Claim 8;** wherein said High Order Path Adaptation function is a G.783 function as claimed in **Claim 9;** Wherein said packetizer further comprises a packet transmit function that ignores HPA indications and transfers all data transparently as claimed in **Claim 12; and** wherein said circuit data source stream comprises a fractional T1 and fractional E1 transfer stream as claimed in **Claim 18.**

Cox teaches wherein each circuit data source stream comprises a virtual container of VC-12 (SDH) (OC-48 per col. 2 lines 36-63 & faster protocol per col. 17 lines 64-col 18 line 10) as claimed in **Claim 6;** wherein the system addition comprises a SDH frame (610 per Fig 6 or framer or col. 14 line 41-col 15 line 49) as claimed in **Claim 7;** wherein said system further comprises a High Order Path Adaptation function (adding trunk routing per col 5 lines 1-24) as claimed in **Claim 8;** wherein said High Order Path Adaptation function is a G.783 function (adding trunk routing per col 5 lines 1-24) as claimed in **Claim 9;** Wherein said packetizer further comprises a packet transmit function that ignores HPA indications and transfers all data transparently (620 per Fig 6) as claimed in **Claim 12;** Wherein said circuit data source stream comprises a fractional T1 and fractional E1 transfer stream (teaches other speeds per 17 lines 64-col 18 line 10) as claimed in **Claim 18.**

It would have been obvious to one of ordinary skill in the art to implement the computer-based communication system implementing circuit emulation service over an Internet Protocol network (CES over IP, CESOIP for Fractional T1, Fractional E1, as well as OC-40 or SONET or VC-12 based upon the teaching of Cox per 17 line 64-col 18 line 10; furthermore, it would have been obvious to build the method to be in conformance with G.783 because it is a standard which is well known in the art.

Referring to **Claim 17,** Cox teaches: A computer-based communication system implementing circuit emulation service over an Internet Protocol network (CES over IP, CESOIP) as per claim 8,

 Cox does not expressly call for: wherein said packetizer further comprises a packet receive function detects errors defined in G.826

Cox teaches: wherein said packetizer further comprises a packet receive function detects errors defined in G.826 error per col 15 lines 44-50)

It would have been obvious to one of ordinary skill in the art to implement the error detection in the packetizer to conform with a standard or G.826 which is well known in the art.

Referring to **Claim 22,** Cox teaches: A computer-based communication system implemnting circuit emulation service over an Internet Protocol network (CES over IP. CESOIP) as per claim1,

Cox does not expressly call for: wherein said system further comprises a clock recoverer

Cox teaches: wherein said system further comprises a clock recoverer (The applicant broadly claims "clock recoverer" which the examiner interprets being able to get timing which is taught per col 14 line 66-col 15 line 3.

It would have been obvious to one of ordinary skill in the art at the time of the invention that getting timing per col 14 line 66-col 15 line 3 performs the same function as "clock recoverer".

Referring to **Claim 26**, Cox teaches: A computer-based method implementing circuit emulation service over an Internet Protocol network (CES over IP, CESOIP) as per Claims 24,

Cox does not expressly call for: wherein said circuit data source stream comprises a fractional T1 and fractional E1 transfer stream

Cox teaches: Wherein said circuit data source stream comprises a fractional T1 and fractional E1 transfer stream (teaches other speeds per 17 lines 64-col 18 line 10)

It would have been obvious to one of ordinary skill in the art to implement computer-based method implementing circuit emulation service over an Internet Protocol network for Fractional T1 and Fractional E1 based upon the teaching of Cox per 17 line 64-col 18 line 10;

Referring to **Claim 29**, Cox teaches: A computer-based communication system implemnting circuit emulation service over an Internet Protocol network (CES over IP. CESOIP) as per claim 25,

Cox does not expressly call for: wherein said method further comprises the additional step of passing the data packets through a clock recovery function.

Cox teaches: wherein said method further comprises the additional step of passing the data packets through a clock recovery function (The applicant broadly claims "clock recovery function" which the examiner interprets being able to get timing which is taught per col 14 line 66-col 15 line 3.

It would have been obvious to one of ordinary skill in the art at the time of the invention that getting timing per col 14 line 66-col 15 line 3 performs the same function as "wherein said method further comprises the additional step of passing the data packets through a clock recovery function".

Claim Objections

7.0   Claims 10-16, 21,23, & 30 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

The closest prior art Cox et. al. (U.S. Patent No.: 6,459,708) does not disclose:

"generates no packets when loss of a pointer is detected as claimed in **Claim 10**,

"special control packet when HPA generates an error" as claimed in **Claim 11.**

"Detect loss of UDP/RTP packet" as claimed in **Claim 13**,

"UDP checksum error" as claimed in **Claim 14.**

"Loss of three consecutive VC-12 frames" as claimed in **Claim 15**

"Outputs an AIS signal upon receive of a packet" as claimed in **Claim 16**.

"RTP header …information" as claimed in **Claim 21.**

"RTP packet" as claimed in **Claim 23**.

"receiving RTP packet as claimed in **Claim 30**.

Claim Objections

8.0   Claim 23 is objected to because of the following informalities: calculator is misspelled

in limitation " a 2T-integral-caluator". Appropriate correction is required.
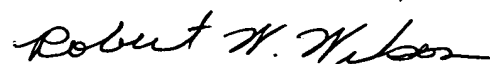
Conclusion

9.0   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Robert W Wilson whose telephone number is 703/305-4102. The

examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9314 for regular

communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-4700.

Robert W Wilson
Examiner
Art Unit 2661

RWW
March 11, 2004